

**CLASS SPECIFICATION**  
**County of Fairfax, Virginia**

**CLASS CODE:** 5103

**TITLE:** ENGINEER II

**GRADE:** S-24

**DEFINITION:**

Under supervision, performs developmental engineering work in the design, construction, operation, and maintenance of streets, buildings, drainage systems, solid waste facilities, sewers and the administration of County code and ordinances; begins to apply basic engineering principles; receives guidance on solutions for unusual problems, complex features and other non-routine assignments; and performs other related duties as required.

**DISTINGUISHING CHARACTERISTICS OF THE CLASS:**

The Engineer II is distinguished from the Engineer III in that the Engineer II performs work that develops a full understanding of the application of engineering principles whereas the Engineer III independently performs the full performance level of engineering and project management work.

The Engineer II is distinguished from the Engineer I in that the Engineer II performs developmental engineering work and begins to apply basic engineering principles, whereas the Engineer I performs work of a training nature in the development of engineering skills.

**ILLUSTRATIVE DUTIES:**

Depending on the functional area of assignment:

Performs all the duties of the Engineer I and as applicable;

Reviews plans submitted for permit; approves plans for structures or projects that closely adhere to the county's typical or standard details contained in the Public Facilities Manual or other governing documents;

Maintains records of subdivisions;

Prepares designs using CAD software for sanitary sewers, stormwater facilities, solid waste facilities, transportation facilities, and other county projects with defined objectives, priorities, budgets and deadlines;

Prepares project cost estimates and schedules for various project types;

Reviews plans submitted by Architectural and Engineering (A&E) firms for County projects to determine if they meet design requirements, and for cost and compatibility with County standards and guides and operational needs;

Reviews and approves shop drawings and third party quality control inspection reports submitted pursuant to "Special Inspections Requirements" under the Virginia Uniform Statewide Building Code and the Fairfax County Special Inspections Program;

Conducts field inspections of commercial construction projects to verify compliance with associated building code requirements of the Virginia Uniform Statewide Building Code;

Performs various construction management or architectural tasks, participating in the contracting process, monitoring construction progress, verifying invoices for payment, and resolving problems of increasing complexity;

Conducts surveys of existing structures;

Prepares and presents reports to customers, boards and commissions;  
May provide guidance and direction to Engineer I's;  
May supervise engineering para-professionals and administrative support staff;  
Monitors solid waste operations for regulatory compliance;  
Analyzes environmental data;  
Implements enforcement actions in accordance with County codes;  
Reviews and approves plans in accordance with the Virginia Uniform Statewide Building Code;  
Meets with customers to explain building plan deficiencies;  
Serves as overall Project Manager for sanitary sewers, stormwater facilities, solid waste facilities, transportation facilities, and other county projects types as assigned;  
Assists in the selection of consulting firms and in contract negotiations.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Depending on the functional area of assignment:  
Knowledge of the principles, theory and practice of civil, architectural, and environmental engineering or urban planning;  
Knowledge of the principles, practices and techniques relating to construction project management and contract administration;  
Knowledge of computer applications and software (such as CAD) that is associated with the preparation of plans and engineering computations;  
Knowledge of topographic and construction surveying;  
Knowledge of common methods and equipment used in engineering design/construction and of inspection methods used in reviewing such work;  
Knowledge of real property descriptions;  
Knowledge of environmental testing methods;  
Knowledge of state and federal laws and regulations regarding solid waste management;  
Knowledge of Virginia Uniform Statewide Building Code and the codes and ordinances which apply to building construction in Fairfax County;  
Ability to gain familiarity with the Public Facilities Manual;  
Ability to work in a team environment;  
Ability to train and supervise staff;  
Ability to review construction documents, designs and proposals for costs, design requirements and compatibility with County standards, guides and operational needs;  
Ability to prepare reports, specifications, and contract documents;  
Ability to conduct public meetings;  
Ability to prepare technical reports and to present findings in a clear and concise format;  
Ability to make accurate drawings and maps;  
Ability to make accurate computations and neat and accurate field notes;  
Ability to collect and compile research data.

**EMPLOYMENT STANDARDS:**

Any combination of education, training and experience equivalent to:  
Graduation from a four-year college or university accredited by the Accreditation Board of Engineering and Technologies with a bachelor's degree in the appropriate engineering or architectural field; PLUS  
One year of professional experience in the appropriate engineering field.

Upon successful completion of four years of professional engineering experience, Engineer II employees are eligible for a non-competitive appointment to Engineer III within the engineering discipline for which they have been trained.

**CERTIFICATES AND LICENSES REQUIRED:**

A driver's license may be required for some positions as identified to the Department of Human Resources.

**NECESSARY SPECIAL REQUIREMENTS:**

Possession of a valid Virginia Erosion and Sediment Control Reviewer Certification, or the ability to obtain same within two years of appointment, is required for certain positions as identified to the Department of Human Resources.

Possession of a valid Virginia Waste Management Facility Operator Class II License, or the ability to obtain one within two years of appointment is required for certain positions as identified to the Department of Human Resources.

Possession of a Virginia Department of Housing and Community Development certification as Commercial Building Inspector and as Fire Protection Inspector is required within 18 months of appointment for certain positions as identified to the Department of Human Resources.

Possession of one Plan Review certification issued by the Virginia Department of Housing and Community Development in either residential building, commercial building, plumbing, electrical or mechanical is required within 12 months of appointment for certain positions identified to the Department of Human Resources.

REVISED: April 29, 2007